

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 06 July 2001 (06.07.01)	Applicant's or agent's file reference TRM TR990031
International application No. PCT/US00/26901	
International filing date (day/month/year) 29 September 2000 (29.09.00)	Priority date (day/month/year) 30 September 1999 (30.09.99)
Applicant LAFATA, Paul, Sylvester et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
30 April 2001 (30.04.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Charlotte ENGER
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
NORMAN P. SOLOWAY
HAYES, SOLOWAY, HANNESSEY,
GROSSMAN & HAGE, P.C.
175 CANAL STREET
MANCHESTER, NH 03101

PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing
(day/month/year) **14 DEC 2001**

Applicant's or agent's file reference

TRM TR990031

IMPORTANT NOTIFICATION

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US00/26901

29 September 2000 (29.09.2000)

30 September 1999 (30.09.1999)

Applicant

LAFATA, PAUL SYLVESTER

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Emmanuel S. Luk

DEBORAH THOMAS
PARALEGAL SPECIALIST

Telephone No. (703) 305-1558

Form PCT/IPEA/416 (July 1992)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TRM TR990031	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/26901	International filing date (day/month/year) 29 September 2000 (29.09.2000)	Priority date (day/month/year) 30 September 1999 (30.09.1999)
International Patent Classification (IPC) or national classification and IPC IPC(7): B28B 17/00; B29C 47/00 and US Cl.: 425/182, 185, 190, 562		
Applicant LAFATA, PAUL SYLVESTER		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u> </u> sheets.</p> <p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 30 April 2001	Date of completion of this report	
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230	Authorized officer Emmanuel S. Luk DEBORAH THOMAS PARALEGAL SPECIALIST Telephone No. (703) 305-1558	

Form PCT/IPEA/409 (cover sheet)(July 1998)

I. Basis of the report**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed.
- ☒ the description:
pages 1-7 as originally filed
pages None, filed with the demand
pages None, filed with the letter of _____.
- ☒ the claims:
pages None, as originally filed
pages None, as amended (together with any statement) under Article 19
pages None, filed with the demand
pages 8-11, filed with the letter of 01 October 2001 (01.10.2001)
- ☐ the drawings:
pages 1-2, as originally filed
pages None, filed with the demand
pages None, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.
PCT/US00/26901**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims <u>3,4,6-17,20,21 and 23-25</u>	YES
	Claims <u>1,2,5,18,19 and 22</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-25</u>	NO
Industrial Applicability (IA)	Claims <u>1-25</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1, 2, 5, 18, 19 and 22 lack novelty under PCT Articles 33(2) as being anticipated by Maus et al. Maus et al teach a method and apparatus of molding plastic articles (31") in an injection mold (Col. 1, lines 5-9) between first mold section and second mold section (74") having interchangeable gate inserts (Col. 28, lines 35-48) of various designs (Col. 32, lines 24-25) where the insert is placed in a recess (27). Regardless of the material used, the gates are interchangeable and the intended use of changing the gates for changing the gates for color rather than the prior art of different flow control.

Claims 3,4,6-17,20,21 and 23-25 lack an inventive step under PCT Article 33(3) as being obvious over Maus et al over Hepler et al. Maus et al teach the claimed invention. Maus et al fail to teach an edge gate design, gate design removably attachable to the first or second mold member by threaded fasteners, having at least two interchangeable mold members for the gate designs, and the plastic materials of a certain pigment or polymer. However, in regards to the plastic material, it is merely an intended use of the apparatus by specifying the pigments and the properties of the plastic material. In regards to the edge gate design, Hepler et al teaches an injection molding machinery having a bushing (10) with a tip (39) that releasably screws (Col. 6, line 5) into the terminal end of the nozzle body (30), the tips are interchangeable and fits in a recess formed in the end of the nozzle body, and the tip having multiple edge gates (Col. 1, lines 19-20). It would have been obvious to one of ordinary skill in the art to have provided Maus et al with a tip design because it provides a way of securing the inserts and to port the materials via edge gate design as taught by Hepler et al.

Claims 1-25 meet industrial applicability under PCT Article 33(4) because the claimed apparatus can be used in industry to injection mold plastic products.

NEW CITATIONS

US 4,828,769A (MAUS ET AL) 09 May 1989 (09.05.1989), see entire document.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TRM TR990031	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/26901	International filing date (day/month/year) 29 September 2000 (29.09.2000)	Priority date (day/month/year) 30 September 1999 (30.09.1999)
International Patent Classification (IPC) or national classification and IPC IPC(7): B28B 17/00; B29C 47/00 and US Cl.: 425/182, 185, 190, 562		
Applicant LAFATA, PAUL SYLVESTER		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u> </u> sheets.</p> <p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 30 April 2001	Date of completion of this report	
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230	Authorized officer Emmanuel S. Luk DEBORAH THOMAS PARALEGAL SPECIALIST Telephone No. (703) 305-1558	

Form PCT/IPEA/409 (cover sheet)(July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/26901

I. Basis of the report**1. With regard to the elements of the international application:***☒ the international application as originally filed.☒ the description:

pages 1-7 as originally filed

pages None, filed with the demand

pages None, filed with the letter of _____

☒ the claims:

pages None, as originally filed

pages None, as amended (together with any statement) under Article 19

pages None, filed with the demand

pages 8-11, filed with the letter of 01 October 2001 (01.10.2001)

☐ the drawings:

pages 1-2, as originally filed

pages None, filed with the demand

pages None, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.**4. ☐ The amendments have resulted in the cancellation of:**☐ the description, pages _____☐ the claims, Nos. _____☐ the drawings, sheets/fig _____**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).****

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US00/26901**V. Reasoned statement under Rule 66.2(a)(II) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims <u>3,4,6-17,20,21 and 23-25</u>	YES
	Claims <u>1,2,5,18,19 and 22</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-25</u>	NO
Industrial Applicability (IA)	Claims <u>1-25</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1, 2, 5, 18, 19 and 22 lack novelty under PCT Articles 33(2) as being anticipated by Maus et al. Maus et al teach a method and apparatus of molding plastic articles (31") in an injection mold (Col. 1, lines 5-9) between first mold section and second mold section (74") having interchangeable gate inserts (Col. 28, lines 35-48) of various designs (Col. 32, lines 24-25) where the insert is placed in a recess (27). Regardless of the material used, the gates are interchangeable and the intended use of changing the gates for changing the gates for color rather than the prior art of different flow control.

Claims 3,4,6-17,20,21 and 23-25 lack an inventive step under PCT Article 33(3) as being obvious over Maus et al over Hepler et al. Maus et al teach the claimed invention. Maus et al fail to teach an edge gate design, gate design removably attachable to the first or second mold member by threaded fasteners, having at least two interchangeable mold members for the gate designs, and the plastic materials of a certain pigment or polymer. However, in regards to the plastic material, it is merely an intended use of the apparatus by specifying the pigments and the properties of the plastic material. In regards to the edge gate design, Hepler et al teaches an injection molding machinery having a bushing (10) with a tip (39) that releasably screws (Col. 6, line 5) into the terminal end of the nozzle body (30), the tips are interchangeable and fits in a recess formed in the end of the nozzle body, and the tip having multiple edge gates (Col. 1, lines 19-20). It would have been obvious to one of ordinary skill in the art to have provided Maus et al with a tip design because it provides a way of securing the inserts and to port the materials via edge gate design as taught by Hepler et al.

Claims 1-25 meet industrial applicability under PCT Article 33(4) because the claimed apparatus can be used in industry to injection mold plastic products.

NEW CITATIONS

US 4,828,769A (MAUS ET AL) 09 May 1989 (09.05.1989), see entire document.

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference TRM TR990031	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US00/26901	International filing date (<i>day/month/year</i>) 29 September 2000 (29.09.2000)	(Earliest) Priority Date (<i>day/month/year</i>) 30 September 1999 (30.09.1999)
Applicant TEXTRON AUTOMOTIVE COMPANY, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of ____ sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the Report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (See Box II).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. 1



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/26901

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B28B 17/00; B29C 47/00

US CL : 425/182, 185, 190, 562

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 425/182, 185, 190, 562

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4,157,148 A (WHITE) 05 June 1979 (05.06.1979), column 3, lines 51-57.	1-25
Y	US 4,952,132 A (LUNDQUIST) 28 August 1990 (28.08.1990), column 4, lines 54-65.	1-25
Y	US 5,334,006 A (HEPLER et al) 02 August 1994 (02.08.1994), column 1, lines 17-21.	1-25
Y, E	US 6,146,123 A (LAUSENHAMMER et al) 14 November 2000 (14.11.2000), figure 1.	1-25
A	US 4,034,951 A (SOKOLOSKI) 12 July 1977 (12.07.1977), column 1, lines 23-45.	1-25
A	US 5,762,976 A (BROWN) 09 June 1998 (09.06.1998), figure 5.	1-25



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:		"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

03 December 2000 (03.12.2000)

Date of mailing of the international search report

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks

Box PCT

Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Emmanuel S. Luk

Telephone No. (703) 305-1558

From the INTERNATIONAL SEARCHING AUTHORITY

To:
 NORMAN P. SOLOWAY
 HAYES, SOLOWAY, HANNESSEY,
 GROSSMAN & HAGE, P.C.
 175 CANAL STREET
 MANCHESTER, NH 03101

PCT

NOTIFICATION OF TRANSMITTAL OF
 THE INTERNATIONAL SEARCH REPORT
 OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference TRM TR990031		Date of Mailing (day/month/year)
International application No. PCT/US00/26901		International filing date (day/month/year) 29 September 2000 (29.09.2000)
Applicant TEXTRON AUTOMOTIVE COMPANY, INC.		

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.
Filing of amendments and statement under Article 19:
 The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompany sheet.

Where? Directly to the International Bureau of WIPO
 34, chemin des Colombettes
 1211 Geneva 20, Switzerland
 Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.
3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

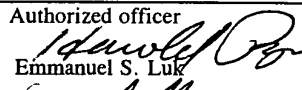

4. **Further action(s):** The applicant is reminded of the following:

Shortly after **18 months** from the priority date, the international application will be published by the International Bureau.
 If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 *bis* 1 and 90 *bis* 3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within **20 months** from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the ISA/US
 Commissioner of Patents and Trademarks
 Box PCT
 Washington, D.C. 20231
 Facsimile No. (703)305-3230

Authorized officer

 Emmanuel S. Luk

 Telephone No. (703) 305-1558

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/26901

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B28B 17/00; B29C 47/00

US CL : 425/182, 185, 190, 562

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 425/182, 185, 190, 562

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4,157,148 A (WHITE) 05 June 1979 (05.06.1979), column 3, lines 51-57.	1-25
Y	US 4,952,132 A (LUNDQUIST) 28 August 1990 (28.08.1990), column 4, lines 54-65.	1-25
Y	US 5,334,006 A (HEPLER et al) 02 August 1994 (02.08.1994), column 1, lines 17-21.	1-25
Y, E	US 6,146,123 A (LAUSENHAMMER et al) 14 November 2000 (14.11.2000), figure 1.	1-25
A	US 4,034,951 A (SOKOLOSKI) 12 July 1977 (12.07.1977), column 1, lines 23-45.	1-25
A	US 5,762,976 A (BROWN) 09 June 1998 (09.06.1998), figure 5.	1-25



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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